

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:	Boudouris et al
Application No.:	09/990109
Filed:	November 21, 2001
For:	Magnetic Substrates, Composition and Method for Making the Same
Group Art Unit:	1733

Mail Stop \_\_\_\_\_  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Docket No.: M112.2-10064-US01

## DECLARATION UNDER 37 C.F.R. §1.132

I, Thomas H. Quinn, attest and say as follows:

1. I graduated from Macalester College in St. Paul, MN with a Bachelor's Degree in Chemistry.
2. I was employed by the H.B. Fuller Co., a global manufacturer of adhesives and coatings, from 1973, when I was hired as an Analytical Chemist. That same year I transferred to the Hot Melt Research & Development Laboratory as a product development chemist. In that role, I developed the company's first hot melt pressure sensitive adhesives, conceived and helped in the development of the first co-extruded pillows, eliminating the need for shipping tacky products in silicone lined boxes, received a patent in 1976 for the invention of styrene-ethylene/butylene-styrene (SEBS) block copolymer based pressure sensitive adhesives used as attachment adhesives for feminine hygiene products. These products are still in use today. In 1976, I was promoted to Department Head of the Hot Melt Research & Development Laboratory. In that role, I assumed responsibility for leadership in the development of H.B. Fuller's hot melt technology, lead technical efforts for the integration of company acquisitions, participated in planning and start-up for H.B. Fuller's first modern hot melt manufacturing facilities and was a leader for technology transfer to H.B. Fuller's

international locations, particularly Europe. In 1985, I became the first "Technical Systems Manager" for the development of computer systems to be used for the Research & Development facility located in St. Paul, MN. In this role, I helped develop world wide web access for the laboratory, and developed databases to store information for raw materials used in H.B. Fuller's adhesives and coatings, including hot melt, water base and reactive composition raw materials. In 1995, I returned to the hot melt laboratory where I developed and managed a hot melt technical intranet, lead the transfer of technology for international hot melt laboratories, held a leadership role in a joint development product with Dow Chemical Company to develop single-site catalyst polyolefin polymers for packaging adhesives, and received the most prestigious technical award given to H.B. Fuller Research & Development personnel (Annual Technical Achievement Award, 1998) for the development of polyolefin base hot melt adhesives for packaging.

3. In 2002, I left H.B. Fuller Co. and founded Adherent Laboratories. Adherent Laboratories serves all segments of the adhesives industry including adhesive users, adhesive distributors and manufacturers, and raw material suppliers, in the areas of adhesive testing and product support.
4. I am an inventor on many issued U.S. Patents relating to hot melt adhesives and articles formed having hot melt adhesives thereon including US 6,833,404; US 6,582,829; US 6,319,979; US 6,107,430; US 4,136,699. I am also an inventor on many currently pending U.S. Patent Applications.
5. Based on my experience, I am qualified as skilled in the hot melt adhesive and coating art, as well as in the hot melt application equipment art.
6. I provide this Declaration in support of the patentability of the subject matter disclosed and claimed in the patent application which is referenced above.
7. I have read and understand U.S. Patent No. 6,387,485 to Bielek et al. which discloses a flexible composite which includes a flexible carrier, a first adhesive and a

second adhesive. The first adhesive is adhered to the flexible carrier and includes ferromagnetic material (Abstract).

8. There is no suggestion by Bielek et al. to employ hot melts or hot melt coatings as part of the process of forming the flexible composite described therein. Nor is there any suggestion that elevated application temperatures are employed. On the contrary, as explained more below, the teachings of Bielek et al. suggest the use of solutions, not hot melts.

9. Most of the flexible carrier films suggested by Bielek et al. are heat sensitive, and would not be conducive to direct hot melt coating. If hot melts were to be directly coated onto such films, special processing conditions would be required in order to assure that such films were not deformed by application of the hot melt, none of which are suggested by Bielek et al.

10. The pressure sensitive compositions suggested for use as the "second adhesive" are all solution based adhesives. Further, it is safe to assume that as the process is a continuous one, application of a solution adhesive at the front end would also suggest a solution at the back end. I have never seen a continuous application that combines a hot melt coating with a solution coating because the application rates of the two are very different.

11. Further, as an example, Bielek et al. suggest the ferromagnetic adhesive layer may be formed of 85 parts stainless steel particulate 410L with a particle size rated at 325 mesh as sold by Ametek, Specialty Products Division, of the town of Eighty Four, Pa. The resin may be formed of 15 parts (solids) of VITEL™ 3350 polyester resin as sold by Bostic, Inc. of Middleton, Mass. (col. 2, lines 42-59). The parenthetic use of the term "solids" indicates that they are using a solution process and they further assume the reader makes the same assumption and needs to know they are using "solids" in this example only to show what the finished material is composed of AFTER the solvent used in the process has been removed.

I have included with this declaration, a technical data sheet for VITEL® 3350, the polyester resin suggested for use by Bielek et al. As shown in the data sheet, the resin is intended for use as a 30-50% solid solution in a solvent, and is not suggested for use as a hot melt resin. Thus, Bielek et al., do not suggest the use of a melt composition as required by claim 1 of U.S. Patent Application Serial No. 09/990,109, reproduced below:

Claim 1

A process of forming a magnetic assembly having at least one magnetic layer having dimensions of thickness, width and length, and at least one printable substrate layer having dimensions of thickness, width and length, comprising the steps of:

- a) providing a magnetic hot melt composition at an elevated temperature, said magnetic hot melt composition comprising about 75 wt-% to about 95 wt-% of at least one magnetic material and about 5 wt-% to about 25 wt-% of at least one thermoplastic polymer; and
- b) directly applying said magnetic hot melt composition at an elevated temperature when it is pliable to a printable substrate layer.

All statements made herein of my own knowledge are true; all statements made on the information and belief are believed to be true; and all the foregoing statements were made with the knowledge that willful false statements and the like are punishable by fine or imprisonment or both, under § 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of this application and any registration resulting therefrom.

Date: Jan 7, 2005

Signed: Thomas H. Quinn

Thomas H. Quinn

Title President  
Adherent Laboratories Inc.